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THE
DEPARTMENT OF WOODLOT MANAGEMENT
MACDONALD COLLEGE
AND
THE MORGAN ARBORETUM
AND WOODLAND DEVELOPMENT ASSOCIATION



ANNUAL REPORT
PART I — SUMMARY
to MAY 31st, 1964

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THE DEPARTMENT OF WOODLOT MANAGEMENT

Once again it is a pleasure to report to the membership the highlights of the past year's activities commencing June 1st, 1963, and ending May 31st, 1964.

Membership

During the past year a determined effort, under the able chairmanship of Vice-President S. H. Dobell, has been made to interest more "city-dwelling" tree farmers (i.e. business and professional people who own country properties) in the Arboretum programme, the thought being that this large group of woodland owners who stood to benefit most directly from supporting a programme of research and teaching of natural resources conservation in the Arboretum would be glad to be connected with it. 487 letters were sent out and 58 new memberships can be attributed to this effort. As only one-fifth of the Arboretum budget comes from the University it is essential that these memberships be kept up and an active and interesting programme developed to keep the project progressing favourably. Without the support of the forest industry and these memberships the project could not be continued. At the end of the year membership stood at a new high of 578 individual and family members, 36 forest industry and associated company memberships, and 17 honorary memberships, an encouraging increase of 185 new memberships over last year. Thanks are due to the dedicated efforts of Mr. Dobell, to President F. A. Harrison, the Directors and others who have spent a great deal of time talking up the project and assisting us in many ways.

Staff

It is also a pleasure to report the appointment of a new forester to our staff, Mr. J. D. MacArthur who comes to us from the Department of Forestry in Quebec. Mr. MacArthur has worked as a research officer with the Forest Research Branch since graduating in 1952 from the Faculty of Forestry, University of New Brunswick. His experience includes woods operations with the Canadian International Paper Company at Clova which he left to go overseas with the Canadian Army in 1944 where he was wounded in Italy fighting with the First Canadian Division. As a forestry research officer he has studied reforestation, spruce-fir silviculture, forest nursery practice and tree breeding, and already his experience and good judgement have been most invaluable to the continuing development and expansion of the over-all programme of research conservation teaching and extension work. His former contacts, interests and experience are also proving most helpful to the progress, efficient conduct and expansion of the work in the Arboretum.

Many staff members at Macdonald College have also been helpful in assisting the operations; in particular, Professors Jim Cooper and Bob Broughton of the Department of Agricultural Engineering who have assisted in several engineering projects, besides the essential jobs of equipment maintenance, modification and repair, but more notably the development of a firewood drag or firewood pallet, the first working model of a new vacuum pump for collecting maple sap, the construction by explosives of a second wildlife and fire protection pond in the Softwood

Field during Farm Day last July, and a land drainage plan for the forthcoming Canada Birch Trail in the Arboretum. Professor Nikolaiczuk, Animal Science Department, has been helpful in the Chukar partridge rearing and release project which was started last summer. Professor MacKenzie of the Soils Department has initiated a maple fertilization project in the Arboretum with the object of studying the effect of fertilizer on sap-sugar content and sap yields. Financial support has been obtained for part of this work and it is planned to conduct some of it in rural areas.

The office and Arboretum staffs have carried out their many duties, functions and services most capably and well. It is most gratifying to be able to work with such a loyal and efficient group. Their keen interest and attitude have been responsible for the completion of a most successful year.

Conservation Training

A worthwhile project initiated this year was the holding of a conservation badge training course for Scouts and Guides in the Lake of Two Mountains and Seneca Scout Districts. The course consisted of a series of 6, 2-hour lectures and film showings, and 4, 3-hour field trips in the Arboretum during the months of April and May. Valuable assistance in the lecturing and field trips was provided by Professor Broughton — Water Conservation; Professor MacKenzie — Soil Conservation; Mr. Vickery, Curator of the Lyman Collection — Wildlife Conservation and Naturalist badges, and Mr. MacArthur and Mr. D. M. Irvine, new Secretary-Manager, Canadian Institute of Forestry — Forest Conservation and Forester badges. The lectures and field trips were well attended by approximately 50 Scouts and Scouters, as well as Guides and Guiders, and 140 badge examinations were conducted the first week of June, 1964. The courses appeared to attract very favourable attention and it is planned to hold them regularly in the Arboretum every spring with the co-operation of the Departments concerned. Mr. MacArthur has also been most active in teaching conservation to the Girl Guides and numerous lectures, film showings, field trips and badge examinations have been held. A March ski-outing in the Arboretum was also made to test Scouts for their winter sportsman badge and 4 Scouts were successful in passing their skiing badge.

Arboretum

Dr. Brittain has continued his unique project of assembling a complete collection of the native trees of Canada in the Arboretum. This collection is now providing much useful information, such as hardiness records, the suitability of various tree species for timber production, landscaping and property beautification, and serves as a valuable source of plant material for tree breeding and for future disease and insect resistance studies, to mention a few. This past year we supplied considerable plant material to the National Arboretum in Ottawa and to the Agricultural Research Station at Charlottetown where a Canadian Tree Garden is being initiated, and specimens of birch trees from across Canada are being supplied for the inauguration and to landscape the grounds of the new Confederation Building in Charlottetown this fall. The annual plant sale of surplus nursery stock has also required a major effort on the part of the Curator as this has become a most popular event.

One of the best known projects in the Arboretum is, of course, Dr.

Brittain's country-wide collection of specimens of white birch. This past year, in addition to two side trips to Prince Edward Island and Eastern Ontario in the fall, a 10,000 mile birch-collecting trip was conducted in the Mackenzie River basin and the Yukon Territories. The trip commenced at Fort Smith in the North West Territories in early August with collections being made at Pine Lake Hay Camp and Fort Fitzgerald in Alberta's Wood Buffalo Park. Dr. Brittain next flew to Fort Simpson where the agricultural research station was visited and collections made on the island, and a short air-trip up the Liard to the mouth of the South Nahanni River for more collections. From Fort Simpson the collecting party travelled "down River north", aboard the Northern Transportation Company's M.V. "Radium Charles" past Fort Wrigley and Fort Norman to Norman Wells where air transport to Inuvik near the mouth of the Mackenzie River delta was obtained. From Inuvik the M.V. "Pelican Rapids" (again courtesy of Northern Transportation Company) took us through the labyrinthine waters of the 3,500 mile delta up the Peel River to Fort McPherson. From McPherson a 110-mile small boat trip was made on the serpentine Husky River to Aklavik where further collections were made. Following this a charter flight hopped the party over the Richardson, Mackenzie and Ogilvie mountains and much unexplored country — a 350 mile flight — to Dawson City on the Yukon River. In Dawson with the assistance of a Northern Affairs and National Resources officer a birch collection was made at the site of the original Discovery claim made by George Carmack on Bonanza Creek on August 14th, 1896. Needless to say, one progeny from this collection will form one of the specimen trees on the Canada Birch Trail to be established prior to 1967 in the Arboretum.

From Dawson the party motored 1,500 miles around the Dawson-60-mile loop into Alaska and down the Alaska Highway to Whitehorse collecting en route. One interesting day was spent at the Agricultural Experiment Station near Haines Junction in the Yukon with Joe Tsukamoto, a Macdonald College graduate, and the Station Director, Hector Hortie. Joe is doing fine work in this uniquely situated station. He estimated that there are 7 bona-fide farmers in the Yukon Territories, so this is probably the first place in the world where an agricultural research station has been set up before the farmers arrived!

Without the kind co-operation and assistance of the many representatives of Northern Transportation Company, officers of the Department of Northern Affairs and National Resources, and Department of Agriculture personnel, this past summer's collecting trip would have been far less successful and much more costly. Because of the transcontinental range of white birch and its varieties, the fact that it is to be found in all provinces and territories, its historic and important transportation usage for many centuries prior to the advent of the Canadian National Railway and the Canadian Pacific Railway, and its now desirable commercial wood qualities, immediately suggest its suitability as a symbol on the Canadian flag (see design enclosed).

It is planned to show some slides taken during last summer's collecting trip as well as other operations of interest in the Arboretum at the Annual General Meeting on July 9th.

Woodland Improvement and Harvesting

Harvest cuttings were carried out during the fall and winter months in parts of management Blocks IV and XVII and salvage cuts were made

along the edges of the Quebec Natural Gas pipeline in order to salvage usable wood from trees that had died following the clearing made in 1958 and to remove trees that might be hazardous for people using the area for recreational purposes.

A commercial diameter-limit cut was used in five acres of mature timber in Block IV. The purpose of this cutting was to demonstrate to the commercial income class of woodland owner the possibilities of this silvicultural method for use in their own woodlots. In most cases this class of owner tends to severely cut back his woodlot periodically, resulting in long periods without a commercial tree crop. A two-acre strip of pioneer timber in Block XVII was cut using the silvicultural clear-cut, 60-foot strip system designed for use by the marginal farm owner. A large number of woodlot owners in Quebec own this type of woodlot. Generally the woodlots contain low quality species and are not operated under any system or plan. Our past experience with these clearcut strips has been most encouraging. Rapid regrowth of pioneer species occurs, primarily red maple, aspen and grey birch. In most cases, grey birch was the main component of the stand prior to cutting. After cutting grey birch appears to be disadvantaged by the strip method and the clearcut strips are regenerating rapidly to the more valuable aspen, red maple, and scattered white pine, which improves the income opportunities and land-use practised by the owner.

The salvage cut made along the Natural Gas pipeline included the edges of Blocks III, IV and V and involved the felling of all dead or dying trees damaged from exposure following the construction of the pipeline. Firewood was the only product produced in these operations.

A total of 586 board feet of sawlogs, 95½ cords of firewood, 5.25 cords of hardwood pulpwood and 19 cords of sugarwood were produced from approximately 9 acres of woodlands.

The donation of chainsaws and other wood-cutting equipment from Terry Machinery and their co-operation at field days has been most helpful in keeping the harvesting and woodlot improvement operations in progress.

Nursery Work, Reforestation, Plantation Maintenance and Research

Nursery Work:

As in the past years much time was spent on the various phases of nursery work. The principal objectives were to produce the seedlings necessary to build up the living collection of birch varieties and races and to grow desirable shrubs and trees for Arboretum plantings and the members' plant sale. Nursery operations are gradually being consolidated in the Johnson Corner Nursery near the foreman's house. This is the most suitable area because of soil conditions and its accessibility for supervision of work, inspections, visits, and demonstrations. Intensive nursery practice will be developed here and other nursery areas used only for temporary storage of older plant material. The stage is now being reached where some of the seed required will be obtained from Arboretum trees. For example, black walnuts produced in the Arboretum were sown for the first time last year.

Once again a successful members' plant sale was held and practically all surplus plant material disposed of. What little remained was replanted for another year. Early commencement of growth and dry weather made preparations for the plant sale somewhat more difficult and time consuming than usual, but these difficulties were successfully

overcome. A total of \$2,471.80 was contributed to Arboretum funds from this operation.

Reforestation:

Reforestation is now on a relatively small scale, mainly because most of the open fields have been planted, but also because sugaring operations, the members' plant sale, and work on the birch collection take up most of the staff time. The main reforestation effort is the replacement of mortality in existing plantations and certain special projects such as Christmas tree trials. This year planting was further reduced at the last minute because of early flushing of the trees and unusually dry weather.

Mortality in the Senneville Field larch plantation was replaced with Norway spruce in the hope that spruce might be more resistant to the strong competition from natural vegetation. In the North Grove Field blanks in the hybrid larch plantation (Japanese X European larch) were filled with Japanese and European larch and Norway spruce. The different larches in this plantation can be identified and it is expected that this may become a highly interesting plantation. Some birches were planted in the Senneville Field in the continuing work to build up the living collection of races and varieties. Two lots of rooted poplar cuttings received from Dr. C. Heimburger were planted for observation and comparison in two areas, 1) the north end of the Quebec Natural Gas pipeline, and (2) a recently cleared area near the Blossom Corner. Small lots of each of five races of Scots pine were planted in the Blossom Corner area and the Johnson Corner Nursery area for comparison and demonstration of their value for Christmas trees. Shearing and pruning will be demonstrated in these two areas and eventually there will be a revenue from Christmas tree sales.

Plantation Maintenance:

Thinning is desirable in some of the older plantations, but is only feasible if the material removed can be sold. A promising means of thinning at a profit is through the sale of shade and ornamental trees. With this in mind an inventory of such trees and where they should be taken from has been made. Small sales are made from time to time permitting us to make thinnings at a net profit. Red pine boughs for Christmas decorations continue to be in demand. This year's sale of boughs from a red pine plantation in the Hardwood Field produced an immediate revenue — 483 bundles were produced from lower-branch pruning of 490 trees. At the same time pruning improved the quality of the plantation.

Black locust trees were removed from what was originally a mixed planting with black walnut in order to liberate the now well established walnut trees.

A great deal of time is still being taken by plantation care such as mowing of grass in young hardwood plantations, pruning of double or defective leaders in pines, shaping in hardwoods, protecting susceptible species from mouse damage in winter, screening to protect susceptible trees from the round-headed apple tree borer, protection of cherry and apple trees from defoliation by the tent caterpillar, and cultivating of the plantation fireguards to keep them effective.

Plantation Research:

1. *Wetland Planting Experiment:* Growth and survival data were again recorded in 1963 and significant results are appearing more and more clearly. A good picture of development is being acquired and will serve as a basis for scientific and popular articles in the near future.

2. *Hybrid Poplar Planting:* Growth and survival data were recorded in several lots of hybrid poplar planted on the Quebec Natural Gas pipeline. By recurrent measurement and observation of the different hybrids their comparative value for timber production will be established.

3. *Hybrid Larch Fertilization:* The co-operative experiment with the Pulp and Paper Research Institute of Canada in fertilizing hybrid larch with a new type of urea-formaldehyde pellet reached its fifth and final year. In the Morgan Arboretum test the fertilizer had no appreciable effect on growth or survival, presumably because the elements added were not in short supply in the soil.

4. *Birch Leaf Miner:* A formal study of the population dynamics of the birch leaf miner was started by the Department of Entomology in the Johnson Corner Nursery where we have a large collection of birch seedlings. This insect, in damaging the leaves of white birch, disfigures the tree and slows its growth. Therefore the study is of special interest to this Department. A practical test of a systemic poison to control the leaf miner is being made in conjunction with the population studies. The work may be eventually expanded to include the large birch collection in the Senneville Field.

5. *Study of the Cytology of Birch:* A research project to study the cytology of white birches will be augmented this year by supporting a graduate student in the Department of Genetics. It is hoped that this will be a significant step in a birch research programme. Information on cytology is necessary to elucidate the difficult taxonomic problems encountered by Dr. Brittain in his collection work with birch.

Maple Research

A slightly better than average year for sugaring was experienced in the Morgan Arboretum, although the Province reported a poor crop year, with the exception of the Franklin Centre area. 353½ gallons of syrup were produced from 2,793 taps and of this total production 110 gallons were produced before the end of March. Unusually cold weather during the season made sap collecting difficult and if tapping had not commenced before the 1st of March this year this early run would have been lost. 911 taps were hooked up with plastic pipeline and an average yield of 1.14 lbs. of sugar per tap was harvested, or an average of 4.5 gallons of sap per tap. The traditional three sugar parties were held: the Morgan Arboretum party attracted close to 600 members and guests; the McGill Graduate party included approximately 1,100 people, and the Macdonald College Faculty Club attracted 200 people. Fortunately this year the weather co-operated for all parties, the only shortage was snow for the McGill party which was held at the usual date, April 18th, but by that time all snow had long since melted. However, the carefully stored-up snow lasted out this final demanding event.

A continuing increase in requests for information have been experienced in the work on maple syrup operations and the Department's work in this field of endeavour is now becoming widely known.

Maple investigations continued this year with a special effort to

follow up those studies that show particular promise for the future. These consisted of:

1. Further trials of maple taphole sterilization using paraformaldehyde and chlorhexidine pellets to attempt to increase sap yields and syrup quality.
2. Tests of various means of collecting maple sap. In particular Mapleflo and Naturalflow plastic pipeline systems, plastic spiles and buckets, metal spiles and buckets, and the use of a vacuum pump to collect from the Mapleflo pipeline system.
3. Studies of sap-sugar content of all tapped trees in the Arboretum sugar bush in order to determine elite or "sweet" trees. Scions from these sweet trees have been sent to the Petawawa Forest Experiment Station for grafting purposes to eventually produce sweet sugar maple planting stock.
4. Study of grafting techniques for production of sweet maple planting stock. (undertaken at the Petawawa Forest Experiment Station).
5. Fertilization of maple trees to study the effect on sap-sugar content and sap yields.
6. Developments in the processing of maple syrup, such as covered evaporators, oil-fired evaporators, propane finishing stoves, and central evaporation to follow-up promising techniques and new methods.
7. Timber stand improvements in sugar maple groves to increase crown development and initiate sugar maple regeneration on the forest floor.

All of these studies offer some economies in the operation of the sugar bush and promise more efficient use of the sugar maple resource, at present a 9½ million dollar industry in Quebec. An article in the March issue of the Macdonald Farm Journal entitled "Sugaring Developments — Tricks, Trends and New Techniques", discusses these developments in some detail and is available on request.

Teaching

The regular woodlot management courses for Degree and Diploma students in Agriculture were held during the fall term with 36 students registered. Six students also chose woodlot projects in the Agriculture 300 2-day tour which is designed to familiarize the student at the beginning of his 3rd year with agricultural and woodlot conditions in the farming regions of the Province. The Diploma students are also expected to carry out a project in their own woodlots following the course and this year Owen Ketcheson from Moira, Ontario, won the Vernon E. Johnson Woodlot Award for carrying out the best farm woodlot project.

Extensive use of the Arboretum for field trips, demonstrations, and excursions to the Harrington Forest Farm are made as practical exercises to help the student gain experience in tree marking in natural stands, thinning and selection cutting, wood measurement, and the important principles of timber plantation and sugar bush management. These field trips also acquaint the student with the more complex problems and conflicts that arise concerning the best use of land for multiple objectives.

Extension and Service Work

A great deal of work is carried out by the Department under the heading of extension and involves educational work as well as service

work for members of the Association. This work involves answering inquiries, addressing groups, woodlot visits and inspections, short courses held in various parts of the Province, radio and television broadcasts on current subjects of interest to woodlot owners, as well as the presentation of scientific papers.

The eighth Woodlot Forestry extension course was held at Macdonald College and 43 people were registered. This course is proving very popular and it is now held every year alternating at Macdonald and McGill. Four field trips were made during the course as these are necessary to demonstrate the principles covered in the lectures. Two trips were made to the Morgan Arboretum, one to the Canadian International Paper Company's Harrington Forest Farm, and one to the Southern Canada Power Company's nursery and tree farm at Drummondville. A description of the course follows:

"A practical course for woodland owners. It will include field trips to points of forestry interest and discuss woodlot problems in Quebec; extension services and organizations available to assist woodlot owners; tree identification; forest protection and control of fire, disease, insect and other agencies; growth of trees and measurement of standing timber and woodlot products; woodlot silvicultural practices; reforestation and plantation management; improvement of young stands; marking and selection cutting in mature forests; the use of native trees for landscaping; principles of fish and game management; Christmas tree culture and sugar bush management; marketing information and legal matters of concern to woodland owners."

This coming fall the course is to be held at McGill and will include 12 lectures commencing October 1st.

The Department also co-operated with the Extension Department by contributing lectures on Woodlot Forestry to the Community School programmes held at Magog and Knowlton this last fall.

A very successful Tree Farmers' equipment field day and demonstration was held in the Arboretum in early December, the third of its kind held. Over 100 visitors turned out to see pruning, shearing, tree cutting, chipping and explosive wood-splitting demonstrations. Chainsaw equipment, snow travellers and many other items useful in weeding, thinning and the general management of woodlands were available for testing and use.

The Department has also been represented at many meetings and conferences during the year and the following papers were presented: "Woodlot Forestry for the Masses", an address describing the importance of considering the low-income owner of woodlands in any woodlot educational programme, at the Ottawa Valley Forestry Association Annual Meeting in Hull; "Forestry and Agriculture - Shall Ever the Twain Meet", a paper presented at the Annual Meeting of the Huron District Woodlots Association, Hespeler, Ontario, describing the woodlot forestry programme at Macdonald College and the need for more integration of curricula in the professional training of agricultural and forestry students in Canada; "Woodlot Management in Quebec" to the Richmond Farm Radio Forum, Richmond.

Participation in a panel on Tree Farming at the Canadian Tree Farmers' Association Annual Meeting in Ottawa, and several talks and reports on Conservation activities and Scouting to District and Provincial Scout Council meetings in Montreal, the Lakeshore and Granby. The

author also chaired a panel on the subject "The Problems of the Woodlot in a Technological Age" at the Canadian Institute of Forestry Annual Meeting in Halifax last October. The invited speakers, John Torunski and J. B. Doyle, discussed respectively their subjects of Extension Forestry and Wood Utilization Research, and the panel discussion was taped for C.B.C. radio, and the members of the panel later interviewed on television broadcasts in the Maritime Provinces.

An address and slide showing, "The Use of Native Trees for Landscaping", was presented by Dr. Brittain to the Pointe Claire Horticultural Society. Mr. MacArthur has addressed the Beauharnois Rotary Club on the subject "Forestry and Pulpwood", and presented "Forestry as a Career" on two occasions to students at Mount Royal High School, as well as addressing many Scout and Guide meetings and field trips on the subject of Conservation. In addition to the above, 21 radio interviews and broadcasts have been made on either Sherbrooke or C.B.C. radio by Department personnel. Several news releases have been issued and carried in local and Montreal papers on various aspects of woodlot research and use of the Arboretum for recreational purposes.

Department personnel have also been active in supporting the programmes, contributing to the committee meetings, and attending field trips and conferences, in particular the Canadian Tree Farmers' Association, and Rouge River Valley Association, the Canadian Pulp and Paper Association, and the Canadian Institute of Forestry, Quebec and Ottawa Valley Branches, as well as attending the New York State Maple School at Lowville, N.Y. in October, and a digital computer course at McGill. This spring the Department reviewed and mimeographed a brief prepared by Mr. James Hargreaves of Massawippi, entitled "Tree Farming in Quebec" which was submitted to the Quebec Royal Commission on Taxation on behalf of the Canadian Tree Farmers' Association, Quebec Branch.

Another noteworthy effort during the Macdonald College Royal was the preparation of a slide-showing on Departmental land-use projects and the compilation of a series of current literature exhibits on: Woodlot Management; Reforestation; Christmas Tree Management; Sugar Bush Management; and Conservation and Multiple Use. The purpose of the exhibits was to describe the work of the Department to the many visitors who come to the College for this event. The Department also assisted the Diploma students in the preparation of their booth display "The Woodlot and its Products."

Gate-keeping records show a total of 3,434 week-end visits during the period June 1963 to May 1964 (exclusive of winter months, November-April). This total does not include regular educational groups, week-day or winter visitors, nor the number attending sugar parties, plant sale or other special field trips and tours. Very little trail packing was necessary this past winter because of the light snow conditions experienced.

Multiple-Use Projects

The interest and growth in membership of the Association has meant a continuous effort to provide more and better services in the Arboretum to make it more attractive to visitors. The release of Chukar partridge in some recently clear-cut areas was carried out last summer and a winter-feeding station set up with the object of establishing this interesting and hardy game bird in the area for wildlife enthusiasts.

With additional timber cutting in the pioneer timber stands close to the farm fields it is expected that this improved habitat will encourage the natural establishment of this bird. From several sightings this spring it is evident that some of the released Chukar survived the winter satisfactorily.

Members' outings this past year have been designed to show them the many possibilities of use of the area. A members' ski tour was held in March and was well attended, and the plant sale and sugar party brought out large numbers of members and their guests. It is planned to establish four secluded rest sites this coming year fairly close to the main trails but set up in somewhat out-of-the-way places where one can stop and enjoy the surroundings. The benches for these locations are now ready and it is planned to set them out this coming summer. The co-operation of the members in being careful with smoking and litter is requested in these locations, and a circular on wildflower protection is enclosed with this report.

Another project of interest was the establishment of a winter camping area for Scouts in the far west part of Block III. This is an area that is unsuitable for timber production on the far side of the Natural Gas pipeline. A large number of requests for accessible winter camping areas for Scouting have been received and it was felt that this piece of land would be ideal for the purpose and not conflict with any other potential use.

Committees

This past year many committees have taken up considerable time and effort of Department personnel. In particular, the Conservation Committee concerned itself with the mechanics and possibilities of establishing a suitable conservation project at Macdonald College with the assistance of a generous grant from an anonymous donor. Together with members of the Entomology Department and other interested members of Faculty a decision was made to establish a chair of wildlife biology. The University has recently given its approval to proceed with the recruitment of a suitable man.

The Economics and Legislation Committees of the Canadian Tree Farmers' Association, Quebec Branch; the Finance Committee, Canadian Institute of Forestry, and Conservation Chairman, Provincial Council Boy Scouts Association, have also taken up a good deal of staff time in discussions and meetings. The Gault Estate Academic Committee was set up to review the scientific and recreational use of Mont St. Hilaire and considerable effort has been devoted to attending meetings and drafting plans for more recreational and forestry developments on this property.

Forest Survey Grant

Following discussions with the Economics Division of the Department of Forestry in Ottawa an extra-mural research grant has been obtained to develop information on the ownership pattern of forest land and to determine the factors which are important in affecting attitudes towards and performance of forestry practices. The land ownership pattern is changing rapidly in parts of Eastern Canada and a knowledge of owners' attitudes and practices will indicate in what way policies should be changed. A questionnaire has been prepared and a two-county study has been commenced with the aid of a forestry graduate. The

results of this work promise to yield valuable information on the pattern of ownership of wooded land in the agricultural regions, the management intensity practised by the different owner classes, and some of the factors governing decisions made with respect to their forest lands. The study will also be helpful to guide extension workers on the most useful methods and media to reach these various kinds of woodland owners.

Deaths

I am sorry to have to report the death of several long-standing supporters and good friends of the Association. They are: Mr. Ernest Bennett who joined in 1961; Mr. R. E. Haldenby who joined in 1955 and owned a certified Tree Farm at Knowlton, Quebec; Mrs. Cleveland Morgan, and Mr. Earl Spafford who joined in 1961.

May 31st, 1964.